

5 **METHOD AND SYSTEM FOR ONLINE**
 INTERACTIVE APPOINTMENTS AND RESERVATIONS

CROSS-REFERENCE TO RELATED APPLICATION

 This application claims the benefit of U.S. Provisional
Application No. 60/170,100, filed December 10, 1999, and entitled
10 "Method and System for Online Interactive Appointments and
Reservations."

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Reference to Computer Program Listing Submitted on CD

 This application incorporates by reference the computer
program listing appendix submitted on one (1) CD-ROM entitled

“Robert P. Todd Computer Program Listing” with the filing of this application, in accordance with 37 C.F.R. § 1.52(e). Pursuant to 37 C.F.R. § 1.77(b)(4), the material on said CD-ROM is incorporated by reference herein, said material being identified as follows:

5	<u>DATE OF</u>	<u>SIZE</u>	<u>FILE NAME</u>
	<u>CREATION</u>	<u>IN BYTES</u>	
	12/08/2000	24,014	AddEmployee.txt
10	12/08/2000	512	Appointment.txt
	12/08/2000	3,529	Appts.txt
	12/08/2000	3,504	BusinessLogin.txt
	12/08/2000	10,388	BusinessMemberhtml.txt
	12/08/2000	32,913	BusinessMember.txt
15	12/08/2000	10,317	BusinessLoginhtml.txt
	12/08/2000	17,139	BusinessMemberLoggedIn.txt
	12/08/2000	30,035	BusinessMemberLogin.txt
	12/08/2000	23,174	BusinessMemberUpdate.txt
	12/08/2000	14,884	BusinessRegistrationhtml.txt
20	12/08/2000	1,806	CommObject.txt
	12/08/2000	3,195	DailyView.txt
	12/08/2000	12,680	DataBaseManager.txt

	12/08/2000	4,715	CheckAvail.txt
	12/08/2000	11,878	FAQhtml.txt
	12/08/2000	24,865	indexhtml.txt
	12/08/2000	1,553	loadtables.txt
5	12/08/2000	17,415	NewBusinessLogin.txt
	12/08/2000	1,007	ProcessPage.txt
	12/08/2000	4,496	Memberhtml.txt
	12/08/2000	7,290	Reservation-Comboboxhtml.txt
	12/08/2000	3,256	ReservationServlet.txt
10	12/08/2000	13,858	RTHaderFooter.txt
	12/08/2000	3,019	ScheduleApp.txt
	12/08/2000	2,450	SpecialtyServlet.txt
	12/08/2000	547	ScheduleRow.txt
	12/08/2000	364	Schhtml.txt
15	12/08/2000	3,826	Reserve.txt

FIELD OF THE INVENTION

The present invention relates broadly to information processing and, more particularly, to a computerized method and system for

enabling a consumer/client to access a retailer/service provider's appointment calendar to reserve available appointment times.

The "date of creation" listed above of the files is the date on which such files were created for purposes of inclusion on the CD-ROM; the date is NOT the date on which the contents of such files were created.

BACKGROUND OF THE INVENTION

Computerized systems within a single organization that enable one individual within the organization to view another individual's calendar and to request meetings with that individual on specific days and times are known in the art. In addition, some hotels have reservation schedules available over the Internet that allow potential customers to determine room availability and to make reservations for particular rooms on particular days by providing contact and credit card information.

There currently is a need, however, for a computerized system accessible over a computer network, such as the Internet, by which customers or clients (hereinafter referred to as "clients") can search for available retailers or service providers (hereinafter referred to as

“service providers”) in a particular geographic region, view a particular service provider’s calendar of appointments, and then make a reservation or schedule an appointment with that service provider at an available date and time by providing contact and credit card, or
5 comparable, information.

Brief Summary of the Present Invention

Briefly described, the present invention includes, in a computerized system, a method of enabling a client to schedule an appointment with a particular service provider, including the steps of
10 providing a database of service providers, each service provider having associated therewith a plurality of identifying criteria, receiving from the client a search request having a plurality of desired criteria associated with the particular service provider, comparing the plurality of desired criteria with the plurality of identifying criteria for
15 each service provider in the database of service providers, presenting the client with a list of service providers having associated therewith the desired criteria, enabling the client to select the particular service provider from the list of service providers presented, enabling the client to request a proposed appointment date and time for meeting
20 with the particular service provider, comparing the proposed

appointment date and time with a database of available dates and times associated with the particular service provider, obtaining identifying information from the client, converting the proposed appointment date and time to a confirmed appointment date and time, 5 adding the confirmed appointment date and time to a database of appointments associated with the particular service provider, and removing the confirmed appointment date and time from the database of available dates and times associated with the particular service provider.

10 The method may further include the step of providing the client with directions to the particular service provider and the step of sending the client a reminder of the confirmed appointment date and time prior to the confirmed appointment date and time. Additionally, the method may include the step of, if the proposed appointment date and time for meeting with the particular service provider is not 15 available, suggesting a different appointment date and time that is available in the database of available dates and times associated with the particular service provider. Alternatively, the method may include the step of, if the proposed appointment date and time for meeting 20 with the particular service provider is not available, enabling the client

to request another proposed appointment date and time. The method further may include the step of enabling the client to define the search request by selecting each of the desired criteria from a database of available desired criteria.

5 Additionally, the method may further include the step of enabling the client to view information about the confirmed appointment date and time and the step of enabling the client to view information about confirmed appointment dates and times for a plurality of particular service providers. Likewise, the method may
10 also include the step of enabling the particular service provider to view information about the confirmed appointment date and time and the step of enabling the particular service provider to view information about confirmed appointment dates and times for a plurality of clients.

 The method of the present invention may further include the
15 steps of enabling the client or service provider to cancel the confirmed appointment date and time, adding the confirmed appointment date and time to the database of available dates and times associated with the particular service provider, and removing the confirmed appointment date and time from the database of appointments
20 associated with the particular service provider.

In another preferred embodiment, the present invention includes, in a computerized system, a method of enabling a client to schedule an appointment with a particular service provider, including the steps of providing a database of service providers, each service provider having associated therewith a plurality of identifying criteria, obtaining identifying information from the client. receiving from the client a search request having a plurality of desired criteria associated with the particular service provider, comparing the plurality of desired criteria with the plurality of identifying criteria for each service provider in the database of service providers, presenting the client with a list of service providers having associated therewith the desired criteria, enabling the client to select the particular service provider from the list of service providers presented, enabling the client to request a proposed appointment date and time for meeting with the particular service provider from a selection of available appointment dates and times from the database of available dates and times associated with the particular service provider, converting the proposed appointment date and time to a confirmed appointment date and time, adding the confirmed appointment date and time to a database of appointments associated with the particular service

provider, and removing the confirmed appointment date and time from the database of available dates and times associated with the particular service provider.

Brief Description of the Drawings

5 A preferred embodiment of the present invention will now be described in detail with reference to the accompanying drawings, wherein:

Fig. 1 is a diagram showing a basic system architecture usable with the present invention.

10 Fig. 2 is a diagram showing an intermediate system architecture usable with the present invention.

Fig. 3 is a diagram showing a more complex system architecture usable with the present invention.

15 Fig. 4 is a diagram showing entity relationships between various databases of the present invention.

Fig. 5 is a diagram showing additional detail of the databases of Fig. 4.

Fig. 6 is a diagram showing additional detail of the databases of Fig. 4.

Fig. 7 is a diagram showing additional detail of the databases of Fig. 4.

Fig. 8 is a schematic flow diagram showing computer screens and information presented thereon available to a client in the present invention.

Fig. 9 is a schematic flow diagram showing computer screens and information presented thereon available to a service provider in the present invention.

Fig. 10 is a flow chart showing a method of the present invention.

Fig. 11 is an example starting web page for use with the method of Fig. 10.

Table 1, consisting of two (2) pages, lists the functionality and screen views available to users of the present invention.

Table 2, consisting of eleven (11) pages, lists the data fields and content therein used by the various databases of the present invention.

Description of a Preferred Embodiment

The present invention describes a computerized method and system for enabling a client to access a service provider's appointment calendar to reserve available appointment times. Preferably, the

system and method of the present invention are used for service providers that schedule appointments for discrete or standardized intervals of time, such as doctor appointments, hair cut appointments, and the like. In a preferred embodiment, the system of the present invention is operated by a third party intermediary on behalf of numerous clients and numerous service providers; however, the system can also be operated directly by a single service provider and made available to numerous clients of that particular service provider.

Turning now to the drawings, Figs. 1-3 merely provide three different examples of system architecture platforms that could be used for the system and method of the present invention.

Figs. 4 through 7 describe the relationships between the various databases used to implement the system and method of the present invention. More specifically, Fig. 4 provides a general overview of the preferred databases that are used by the present invention, and Figs. 5-7 provide more detailed information about the type of data stored within each database. For example, as shown in Fig. 4, the BusinessCustomer database 100 identifies each service provider that is participating within the system of the present invention. The specific type of data actually stored in the BusinessCustomer database 100,

such as relevant contact information about the service provider, is shown in more detail in Fig. 5 and in Table 2. Similarly, as shown in Fig. 4, the InternetCustomer database 200 identifies each client who has registered and is participating within the system of the present invention. The specific type of data actually stored in the InternetCustomer database 200, such as relevant contact information about the client, is shown in more detail in Fig. 7 and in Table 2. Similar information regarding employees of each service provider, who are authorized to view and/or edit the master appointment schedule, is shown in the Employee database 300 of Figs. 4 and 6 and in Table 2. Similar information about any single appointment is stored in the Appointment database 400 as shown in Figs. 4 and 6 and in Table 2. Although not described in detail, the remaining databases, their content, and their interaction with other databases is shown in Figs. 4 through 7 and in Table 2.

Fig. 8 shows the various types of screen displays that a client could view after selecting a particular service provider and when accessing the system of the present invention. Such screen displays could be generated by a Web browser accessing the web server of the system operator in known manner. The various screen displays

include a Day View 810, a Week View 820, or a Month View 830. Additionally, the client could access a specific Appointment View screen display 840 to view any appointments that the client had entered for that particular service provider. Finally, the client could
5 view a Business Detail View screen display 850, upon which or from which the client could obtain contact information about the particular service provider selected, including links to the service provider's website, if available, and a map to the service provider's location. It should also be understood that the screen displays shown in 810, 820,
10 and 830 could be modified to show all appointments common to the client but involving different service providers. In such a case, selecting a particular appointment from one of these screens would enable the client to go to the Appointment View 830 or Business
Detail View 850 for the selected appointment.

15 Fig. 9 shows the various types of screen displays that an authorized agent of a service provider could view when accessing the system of the present invention. Such screen displays could be generated by a Web browser accessing the web server of the system operator in known manner. The various screen displays include a Day
20 View 910, a Week View 920, or a Month View 930. In contrast with

the screen displays presented to a client, the service provider would have access to all of the appointments, with name and phone number of each client, for the given day, week, and month. Additionally, the agent of the service provider could access a specific Appointment

5 Detail View screen display 940 to view additional information about any specific appointment scheduled or reserved by a client. The service provider could view information, such as purpose and status of the appointment, and would be able to add notes if desired for association with that particular client. Further, the service provider

10 would have access to a Contact Info View screen display 950, from which the service provider could obtain historical information about the particular client's appointment/reservation history with the service provider. The service provider would be given authority to modify the dates and times of availability for appointments and would also have

15 the ability to delete specific appointments, with the client receiving an email notification of the cancellation, with or without additional comments by the service provider.

Other information regarding the functionality of the system and preferred screen displays available to registered service providers,

20 registered clients, and unregistered clients is set forth in Table 1.

Fig. 11 shows one preferred screen display 1100 that could typically be presented to either a registered or unregistered client who is interested in finding a particular type of service provider in a particular geographic region. The example screen display 1100
5 includes a typical navigation bar 1110 with hotlinks to other web pages within the system. Optionally, the screen display can also include textual information 1120. A search criteria section 1130 of the screen display include blanks or pull-down menus for inserting the city, state, country, and zip code of the service provider for which the
10 client is searching. In addition, the search criteria section 1130 includes a pull down menu 1140 for selecting the type of service provider for which the client seeks. Once all of the criteria have been selected, the client can search the database for available and registered service providers by selecting the search button 1150. The client can
15 also clear all of the search criteria fields by selcting the clear button 1160.

Referring back to Fig. 10, a method of the present invention is shown. A client initiates the method by navigating to a search criteria input screen display, such as that shown in Fig. 11, inputting search
20 criteria, and then requesting the search using that criteria 1000. The

system server processes the search request by accessing the BusinessCustomer database and determining which service providers satisfy the criteria. If the service providers found are not divided into subcategories or subtypes, the client is presented 1020 with a list of service providers that satisfy the search criteria. If the service providers found are divided in to subcategories or subtypes, a follow-up display and search criteria is presented 1010 to the client. In this case, the client can then select a subtype before being presented 1020 with the list of service providers that satisfy the further-modified search criteria. From this screen, the client then selects a particular service provider from the list of those available. The client is then presented 1030 with an appointment/reservation query form for the selected service provider. On this form, the client can merely request the ideal time and date when the client would like to make an appointment. When the requested time is submitted 1040, the system server accesses the appointment database for the particular service provider to determine if the requested date and time is available. If the time is available, the client is presented 1050 with a confirmation of the appointment. If the client had not already registered with the system, the client would be required to do so in order for the

confirmation to be accepted. If the requested date and time from step 1030 is not available, the client is presented 1060 with a number of options. Specifically, the client is presented with a list of available times that are close to the requested date and time. For example, the system will present other available times for that same day that are available, for the same day of the week and same time originally requested but for a different week, etc. Additionally, the client has the option of entering a new date and time to be searched. If the client selects one of the offered and available appointment times, the client proceeds 1050 to the confirmation of the appointment. If the client selects a new date and time, the server reruns the search and determines 1040 whether the new appointment time is available.

While the present invention is intended to be practiced using computers, no specific software or logic circuit is intended nor is required to be used in the practicing of the present invention. Indeed, it would be a matter of routine skill to select an appropriate conventional computer system and implement the claimed process on that computer system. Accordingly, it is intended that any “means for” claims set forth herein encompass any computer embodiment of the corresponding method claims.

It will therefore be readily understood by those persons skilled in the art that the present invention is susceptible of broad utility and application. Many embodiments and adaptations of the present invention other than those herein described, as well as many variations, modifications and equivalent arrangements will be apparent from or reasonably suggested by the present invention and the foregoing description thereof, without departing from the substance or scope of the present invention. Accordingly, while the present invention has been described herein in detail in relation to its preferred embodiment, it is to be understood that this disclosure is only illustrative and exemplary of the present invention and is made merely for purposes of providing a full and enabling disclosure of the invention. The foregoing disclosure is not intended or to be construed to limit the present invention or otherwise to exclude any such other embodiments, adaptations, variations, modifications and equivalent arrangements, the present invention being limited only by the claims appended hereto and the equivalents thereof.